Network science: a useful tool in economics and finance

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Dror Y. Kenett [1] & Shlomo Havlin [2]

Abstract

The increasing frequency and scope of financial crises has made global financial stability one of the major concerns of economic policy and decision makers. Under this highly complex environment, supervision of the financial system has to be thought of as a systemic task, focusing not only on the strength of the institutions but also on the interdependent relations among them, unraveling the structure and dynamic of the system as a whole. In recent years, network science has emerged as a leading tool for the investigation of complex systems. Here we review several applications of network science in finance and economics, and discuss existing challenges and future directions which will substantiate network science as a key tool for financial academics, practitioners, and policy and decision makers.

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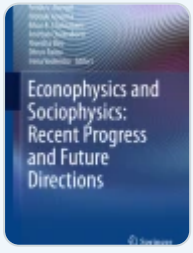

Network Theory in Macroeconomics and Finance

Network Modeling: Historical Perspectives, Agent-Based

The Financial System as a Nexus of Interconnected

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Author information

Authors and Affiliations

Department of Physics, Center for Polymer Studies, Boston University, Boston, MA, USA

Dror Y. Kenett

Department of Physics, Bar-Ilan University, Ramat Gan, Israel

Shlomo Havlin

Corresponding author

Correspondence to Dror Y. Kenett.

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